

Executive Summary

On December 20, 1997 the CALFED Policy Group requested staff from the United States Geological Survey (USGS), San Francisco Estuary Institute (SFEI), and the Interagency Ecological Program (IEP) work together to develop a proposal for a comprehensive monitoring, assessment, and research program (CMARP). The Policy Group requested the proposal include a recommended approach for program development and funding requirements. The proposal was to be brought back to the Policy Group within three months, and up to \$25,000 was authorized for expenditure to cover preparation costs.

This is the proposal, called the Stage I report, for development of a CMARP. The report was prepared by a steering committee consisting of staff from CALFED, IEP, USGS, and SFEI. The steering committee circulated a draft of this report to CALFED and agency staff, and to the CALFED Indicators Group and the ERPP strategic planning team. Steering committee representatives also briefed CALFED management, program managers, and the Ecosystem Roundtable. This report incorporates comments received from these reviews and briefings.

As background, the CALFED Bay-Delta Program is developing a long-term plan to restore ecosystem health and improve water management for beneficial uses of the Bay-Delta/Central Valley system. The program is to equally address the six program elements. The recommended program emerging from Stage II is expected to incorporate elements of existing monitoring and special studies programs such as the SFEI Regional Monitoring Program, the Department of Interior Comprehensive Assessment and Monitoring Program, the CALFED Operations Group Real-time Monitoring, the Vernalis Adaptive Management Program, and the IEP environmental monitoring activities.

Because there is incomplete knowledge of system functions and the effects of individual actions on populations and processes, the CALFED Bay-Delta Program is organized around the concept of adaptive management. Monitoring key system attributes (or indicators), completing focused research to obtain better understanding, and phasing implementation based on information gained are all central to the adaptive management process. The process will include numerous assessment and feedback loops so that management decisions are based on the best and most current information.

The steering committee recommends the following scope, approach, schedule, and funding for design of the comprehensive monitoring, assessment, and research plan:

- A final project report will be delivered within nine months from the date CALFED gives notice to proceed.
- The proposed budget is \$1,800,000.
- Specific tasks to be completed within nine months are:

- work with CALFED agencies and stakeholders to refine overall program goals and objectives;
- develop conceptual frameworks for understanding factors affecting the six common program elements of the Bay-Delta, its watershed, and as appropriate, the near-shore ocean;
- design a CMARP. The process leading to CMARP will include an inventory of existing monitoring and research activities, identification of data gaps (based in part on conceptual modeling described above), selection of monitoring elements, data management, interpretation, analysis and reporting, and establishment of a process for monitoring early implementation, including approved Category III projects;
- identify key research questions applicable to program actions, develop funding requirements, and develop a framework for a focused research program to answer these questions;
- propose an institutional framework necessary to implement the recommended CMARP.

A small steering committee consisting of CALFED, USGS, IEP, and SFEI program managers, staff and stakeholders will manage development of the CMARP. Much of the work will be completed by technical work teams and committees consisting of both agency staff and stakeholders. The steering committee will work closely with CALFED program managers, and expects to periodically brief the Bay-Delta Advisory Council, the Ecosystem Roundtable, and CALFED's Management and Policy Groups on progress toward the recommended plan. Final approval of any recommended plan will be through the CALFED process.